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(12) **United States Patent**
Tan

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(54) **THREE-DIMENSIONAL IMAGE SEARCHING
USING ACTIVE LABEL TECHNOLOGY**

(56) **References Cited**

U.S. PATENT DOCUMENTS

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7,356,489 B2 * 4/2008 Illsley G06Q 30/02
705/26.64

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7,945,484 B1 * 5/2011 Tam G06Q 30/06
705/26.1

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8,032,427 B1 * 10/2011 Spreen G06Q 30/02
705/14.49
8,248,208 B2 * 8/2012 Renfro, Jr. G06K 19/07707
340/10.1

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(Continued)

FOREIGN PATENT DOCUMENTS

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WO WO-2006/058292 A1 * 6/2006

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OTHER PUBLICATIONS

(65) **Prior Publication Data**

US 2015/0287117 A1 Oct. 8, 2015

Rosen, M., "Data Visualization in Three Dimensions," ENT, Dec. 9,
1998.*

(Continued)

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ABSTRACT

A user communication device retrieves shape information from active labels and performs an image based search on the shape files to find locally available acceptable replacement parts. The user communication device may use only the shape files from the active label, or the user communication device may use a combination of images from both the active label and images generated by a user to search for an acceptable replacement part for a faulty system. Using the active label system, the user communication device directly pings replacement parts at local retailers independently of the computer networks operated by the retailers. The user communication device receives back data from replacement parts and provides the user with a list of locally available parts.

Related U.S. Application Data

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(52) **U.S. Cl.**

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(58) **Field of Classification Search**

None

See application file for complete search history.

14 Claims, 7 Drawing Sheets

